

Presentation to Huron-Kinloss Community Advisory Committee November 2014

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## Long-term management of used nuclear fuel

Working together on a shared global priority







# Internationally Recognized Approach

## **UN International Atomic Energy Agency:**

- Geological repositories recognised as safe permanent solution.
- Geological repositories provide:
  - Isolation of radioactive materials deep underground
  - Long-term stability of containment of waste.







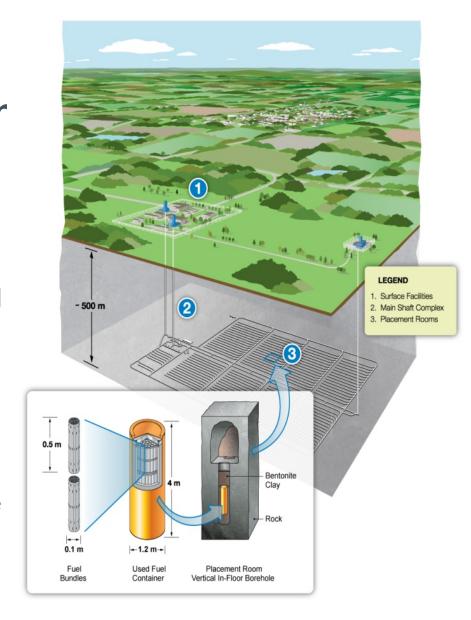
# Internationally Recognized Approach

### **Nuclear Energy Agency** of OECD:

 Recognizes strong international consensus that placement of used nuclear fuel in a deep geological repository is appropriate route for long-term management

#### **European Union Directive:**

 EU Member States have to include planning and implementation of repository options in national policies







#### **International Repository Development**

Country	Waste Form	Repository Target In-Service Date
Finland	Used Fuel	2022: Willing host community – Olkiluoto
Sweden	Used Fuel	2025+: Willing host community – Forsmark
France	Reprocessed HLW & Used Fuel	2025: Region for repository identified - Bure
United Kingdom	Reprocessed HLW & Used Fuel	2075: Siting underway; (LL-ILW ~ 2040)
Canada	Used Fuel	2035: Earliest possible; siting underway
Switzerland	Used Fuel & Reprocessed HLW	2050: Six potential siting regions identified
China	HLW/fuel (tbd)	2050
Japan	HLW/used fuel	To be decided





### National projects in progress

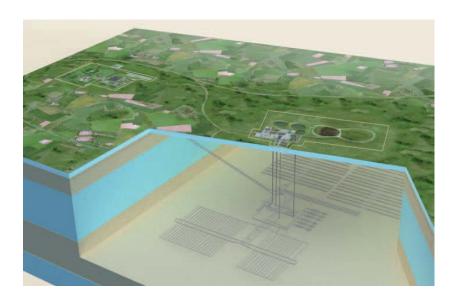
#### Repository design in Sweden



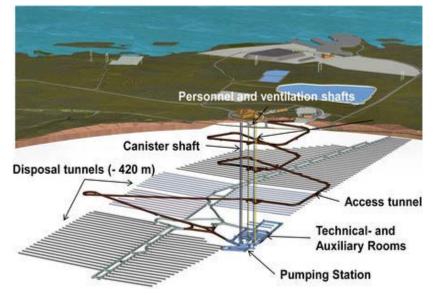


# National projects in progress

Repository design in France



Repository design in Finland



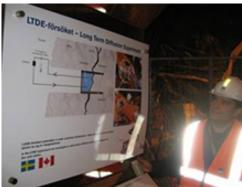




#### **NWMO's International Co-operation**

- NWMO signed co-operation agreements with:
  - FinlandUnited Kingdom
  - Sweden Switzerland
  - France South Korea
- NWMO is active in international organizations:
  - Nuclear Energy Agency (NEA) of OECD
  - International Atomic Energy Agency (IAEA)











#### **NWMO's International Co-operation**

#### Partnerships:

- Let us share in research of mutual interest
- Allow us to collaborate in technical development and demonstration
- Encourage us to share learning and experiences
- Ensure NWMO stays abreast of best international practice







### Äspö Hard Rock Laboratory - Sweden













### Mont Terri Project, Switzerland

#### **Total of 15 International Partner Organizations**









### **Greenland Analogue Project**







SOCIÉTÉ DE GESTION DES DÉCHETS NUCLÉAIRES









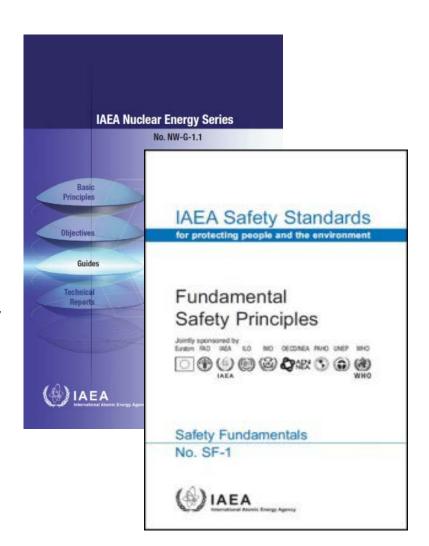
## U.N. IAEA Guidance and Oversight

## International Atomic Energy Agency:

Issues standards and guidance documents

## Joint Convention on the Safety of Spent Fuel Management

- Countries report against international treaty
- International peer reviews







#### Our international exchanges continue...

- Technical programs and demonstration
- Site selection
- Learning from Indigenous Knowledge
- Partnerships and community involvement



